

ORIGINAL



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2016 DEC 30 P 3:36

Arizona Corporation Commission

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**BEFORE THE ARIZONA CORPORATION COMMISSION**

COMMISSIONERS

DOUG LITTLE, Chairman  
BOB STUMP  
BOB BURNS  
TOM FORESE  
ANDY TOBIN

IN THE MATTER OF THE  
APPLICATION OF ARIZONA PUBLIC  
SERVICE COMPANY FOR A HEARING  
TO DETERMINE THE FAIR VALUE OF  
THE UTILITY PROPERTY OF THE  
COMPANY FOR RATEMAKING  
PURPOSES, TO FIX A JUST AND  
REASONABLE RATE OF RETURN  
THEREON, TO APPROVE RATE  
SCHEDULES DESIGNED TO DEVELOP  
SUCH RETURN.

IN THE MATTER OF FUEL AND  
PURCHASED POWER PROCUREMENT  
AUDITS FOR ARIZONA PUBLIC  
SERVICE COMPANY.

DOCKET NO. E-01345A-16-0036

**ARIZONA PUBLIC SERVICE  
COMPANY'S RESPONSE TO  
WARREN WOODWARD'S MOTION  
TO COMPEL**

DOCKET NO. E-01345A-16-0123

On December 5, 2016, Intervenor Warren Woodward submitted his second set of data requests (DRs) to Arizona Public Service Company (APS or Company). That set

1 consisted of 45 questions, most with subparts. APS timely responded to Questions 9  
2 through 13, 18, and 23 through 45 (with the exception of 36 (a)). APS objected to  
3 Questions 1 through 8, 14, 22 and 36(a) on the grounds of relevancy. (A copy of those  
4 Questions is attached as Exhibit A.) APS further objected to Questions 15, 16(a), 17(a),  
5 19 and 21, but not withstanding its objections provided Mr. Woodward with answers to  
6 the best of its ability. Mr. Woodward then filed a Motion to Compel APS to Fully  
7 Answer Data Requests (Motion) on December 27, 2016. Although Mr. Woodward's  
8 Motion mentions that APS had objected to some questions on the bases of being "unduly  
9 burdensome," "overly broad," and "moot" (Motion at 2), the Motion itself addresses  
10 only the issue of relevance, and so APS's Response is limited to that issue.<sup>1</sup>

### 11 **ARGUMENT**

12 The Motion is based entirely on a misreading and misinterpretation of  
13 Commission Decision No. 75047 (April 30, 2015). A copy of the Decision is attached to  
14 the Motion. Decision No. 75047 revoked the Commission's prior approval of Service  
15 Schedule 17 and required APS to provide certain information regarding automated  
16 metering infrastructure (AMI) in this rate case. A review of Service Schedule 17, and the  
17 Commission's language in Decision No. 75047, provides guidance regarding the scope  
18 of inquiry into AMI that the Commission contemplated in this rate case.

19 Service Schedule 17 would have provided for terms and conditions by which  
20 APS residential customers could refuse or "opt-out" from AMI, and contained the fees  
21 associated with non-standard metering of these "opt-out" customers. The terms and  
22 conditions for opting out, and the related fees, were the "issues" presented by APS in  
23 proposed Service Schedule 17 and described by the Commission in Finding of Facts  
24 Nos. 16 and 17 of Decision No. 75047. They were also the issues deferred to the  
25 Company's then upcoming general rate case. *See* Decision No. 75047 at Findings of  
26

27 \_\_\_\_\_  
28 <sup>1</sup> APS did not actually object to any of Mr. Woodward's questions on the basis of mootness, but rather  
made such an observation as a matter of fact in one instance.

1 Fact Nos. 18, 19, and 23.<sup>2</sup> The Commission provided examples of relevant information  
2 for this deferred consideration of Service Schedule 17 in Findings of Fact Nos. 22 and  
3 23 of that same Decision:

4 23. Also in its next general rate case, APS shall provide the  
5 following information in order to assist us with our evaluation of these  
6 issues:

- 7 a. The total number of APS customers who have elected to be  
8 served with analog meters in the test year;
- 9 b. A breakdown by county of the number of APS customers  
10 who have elected to be served with analog meters in the test  
11 year;
- 12 c. The average per-customer, test year costs of providing service  
13 with an analog meter as compared to the average pre-  
14 customer, test-year costs of providing service with a smart  
15 meter;
- 16 d. The test-year costs and expenses attributable to allowing  
17 customers to receive service through an analog meters;
- 18 e. The estimated bill impacts of spreading the cost recovery of  
an opt-out program across all APS customer classes;
- f. The estimated bill impacts of confining the cost recovery of  
an opt-out program to those customers who elect to forego an  
AMI meter;
- g. The estimated bill impacts of spreading the cost recovery of  
an opt-out program across all residential customers; and
- h. A comparative analysis of the costs and benefits of smart  
meters as opposed to the costs and benefits of analog meters.

19 See Decision No. 75047 at FOF 23. None of the information required by the  
20 Commission remotely concerns the safety or operation of the Company's AMI meters,  
21 and all are matters that were provided by APS in its pre-filed DRs submitted  
22 concurrently with the Application in this proceeding.

23 APS's interpretation of the plain meaning of the words in Decision No. 75047  
24 were reiterated in Decision No. 75752 (September 19, 2016): "[H]owever, Staff agrees  
25 with APS's interpretation of Decision No. 75047 that directed APS to include in its next  
26

27  
28 <sup>2</sup> Decision No. 75047 actually has two Findings of Fact No. 23. APS is referring to the first of these  
findings here and to the second finding in the succeeding sentence of its Response.

1 rate case the topics of AMI opt-out and the meter reading for non-standard meters.” See  
2 Decision No. 75752 at 9.

3 Moreover, it is doubtful that this Commission has jurisdiction over the alleged  
4 effects of AMI that are apparently of concern to Mr. Woodward. 47 U.S.C. Section  
5 332(c) (7) is controlling here. This provision:

6 preempted state and local governments from regulating the placement,  
7 construction or modification of personal wireless service facilities on the  
8 basis of the health effects of RF radiation where the facilities would operate  
within levels determined by the FCC to be safe.

9 *Cellular Phone Taskforce v. FCC* (2<sup>nd</sup> Cir. 2000) 205 F.2d 82, 88. It is unquestioned that  
10 APS’s AMI meters provide what federal law defines as “unlicensed wireless service”  
11 (47 U.S.C. 332(c) (7) (C) (iii)) pursuant to FCC approval under 47 C.F.R. Section  
12 15.201(b).


13 Nevertheless, Decision No. 75047 does address concerns raised by Mr.  
14 Woodward and others about the safety and operation of AMI meters. In Findings of Fact  
15 Nos. 7, 9, and 11, the Commission noted that it had studied this issue in Docket No. E-  
16 00000C-11-0328 and had even commissioned the Arizona Department of Health  
17 Services (ADHS) to determine whether there were health or safety concerns with AMI.  
18 The ADHS study found that there were not and “confirmed that the meters were  
19 operating within the FCC standard.” The Commission’s limited review of AMI to  
20 confirm that AMI operates within the FCC standard is consistent with the FCC’s  
21 jurisdiction over the safety of wireless service facilities. And even if the Commission  
22 wished to revisit that determination, the Company’s pending rate case is not the proper  
23 venue. This is especially true in light of the fact that numerous Arizona electric, gas and  
24 water providers use AMI of one kind or another and not just APS. Any generic revisiting  
25 of the propriety of AMI deployment for whatever reasons should involve all affected  
26 Arizona utilities.

1 Finally, including the health effects of AMI in this rate case would unduly expand  
2 the scope of this proceeding. This proceeding is fundamentally about the value of APS's  
3 property devoted to public service, the costs APS incurs to provide that public service,  
4 and how those costs are collected from customers. With regard to AMI, this involves  
5 looking at the costs related to AMI and the terms and conditions of service related to  
6 AMI. The issues raised by Mr. Woodward's data requests would far exceed these  
7 parameters, and might require extensive expert testimony that could consume  
8 disproportionate amounts of the hearing.

9 **CONCLUSION**

10 The Motion makes no factual arguments to support Mr. Woodward's contention  
11 that the requested information is relevant to this general rate proceeding. It relies solely  
12 on a strained interpretation of Decision No. 75047 – an interpretation already rejected by  
13 the Commission in Decision No. 75752. The Motion should be denied.

14 RESPECTFULLY SUBMITTED this 30th day of December 2016.

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# EXHIBIT A

## **Data Requests from Warren Woodward**

- 1) How many times in total (minimum, maximum and average) is an APS node "smart" meter scheduled to transmit during a 24 hour period? Provide transmissions by message type (such as for example those for Meter Read Data, Network Management, Time Synch, Mesh Network Message Management), and provide definitions of message types. If different by manufacturer brand of meter, then provide for each brand of "smart" meter that APS uses.
- 2) Under what scenarios and how often does a node meter transmit outside of the daily schedule, i.e., unscheduled transmission such as on-demand read, tamper/theft alert, last gasp, firmware upgrade etc.?
- 3) Are there any other factors that go into determining duration and/or amount of node meter transmissions (e.g., if a meter can't access the network when it's trying to send data, type of a meter etc.)? If yes, then identify those factors.
- 4) How many times in total (minimum, maximum and average) is an APS gateway "smart" meter scheduled to transmit during a 24 hour period? Provide transmissions by message type (such as for example those for Meter Read Data, Network Management, Time Synch, Mesh Network Message Management) and provide definitions of message types. If different by manufacturer brand of meter, then provide for each brand of meter that APS uses.
- 5) Under what scenarios and how often does a gateway meter transmit outside of the daily schedule, i.e., unscheduled transmission such as on-demand read, tamper/theft alert, last gasp, firmware upgrade etc.?
- 6) Are there any other factors that go into determining duration and/or amount of gateway meter transmissions (e.g., if a meter can't access the network when it's trying to send data, type of a meter etc.)? If yes, then identify those factors.
- 7) APS's new Landys & Gyr "smart" meters are Zigbee equipped. Are those meters installed with the Zigbee radio on or off? If on, how many times per day is the Zigbee transmitting? Breakout by type of transmission.
- 8) At one of the ACC "smart" meter workshop meetings, APS claimed to have tested and measured the microwave radiation of its "smart" meters in a Faraday room.
  - a) Describe exactly what tests were performed, what measurements were taken, what

type "smart" meters were tested, whether a meter was tested in isolation or as part of mesh network, and if tests were performed to detect anything other than microwaves such as for example power quality. Provide any and all worksheets and notes involved (if performed by an outside vendor, provide reports).

b) Since Landis & Gyr brand "smart" meters were not being used at that time, were any similar tests performed by APS on the Landis & Gyr meters prior to their installation? If so, apply the same questions asked above in 8(a).

9) Describe/explain in detail what the following APS residential bill fixed charge line items are for. Provide associated cost of service worksheets for each item.

Customer account charge

Delivery service charge

Environmental benefits surcharge

System benefits charge

Power supply adjustment\*

Metering\*

Meter reading\*

Billing\*

Federal transmission and ancillary services\*

Federal transmission cost adjustment\*

System benefits adjustment

(\* These services are currently provided by APS but may be provided by a competitive supplier.)

a) Which, if any, of the above charges is APS proposing to discontinue?

10) At an APS rate case technical conference it was asserted by APS that there are areas in APS's service territory where, due to remoteness, "smart" meters do not work and will not be used, and that APS is proposing no extra charges for set-up or meter reading to those customers for not having a "smart" meter.

a) Provide locations of these areas and describe why they can't be served.

b) Provide the number of customers affected broken out by class of service.

c) If the mesh communication system does not work in these locations, are there alternative ways to have a "smart" meter in these locations? If yes, then describe.

d) Explain why is it appropriate to charge customers refusing "smart" meters additional charges for meter reading and set-up when other customers will be receiving that same service at no extra charge.

e) Explain why it is appropriate to charge customers refusing "smart" meters the cost of the "smart" meters system they are not using, the cost of manually reading their meters plus the cost of manually reading these customer meters that cannot be serviced by a "smart" meter.



and non-communicating radio modules. Those meters still under warranty were also replaced by the meter manufacturer. Again, none of these replacements were associated with heat induced failures.

- a) How was it determined that “none of these replacements were associated with heat induced failures?”
- b) What are the “various reasons” not specifically detailed above?
- c) Of the 32,000 total mentioned, exactly how many were under warranty?
- d) Who bore the cost of the ones not under warranty, shareholders or ratepayers?
- e) The 32,000 number of replaced meters was for January 1<sup>st</sup> 2014 to August 31<sup>st</sup> 2014. What was the number of replaced meters for the rest of 2014 and thereafter?
- f) Why exactly were those from September 2014 and thereafter replaced (what failed)?
- g) Again, of the total given in response to (e) above, exactly how many were under warranty?
- h) Who bore the cost of the ones not under warranty, shareholders or ratepayers?
- i) Since APS has been installing “smart” meters, list the number that were defective for each year, why they were defective, and who bore the cost of their replacement (including installation costs) if not under a manufacturer's warranty.
- j) Before APS started using “smart” meters, did APS ever experience these sorts of massive meter failures and warranty issues with either analog or non-transmitting digital meters?

14) Here is another ACC question and APS response from the ACC's 2014 investigation mentioned above in question # 13:

3. Has APS experienced any house fires that are attributable to failures or flaws in meters installed as part of APS's AMI system? If so, please provide details.

No. There have been some fires within the APS service territory that were initially alleged to be caused by Elster meters. However, in these instances, a root cause external to the meter itself, such as broken or loose meter clips or defective wiring at the location, was determined to be the cause of the fire.

- a) Exactly how many is “some fires?”
- b) How many of the “some fires” described by APS above have there been in APS's service territory since APS began installing “smart” meters?
- c) Since fires were determined to be caused by factors external to the meter itself, “such as broken or loose meter clips or defective wiring at the location,” was any consideration given by APS to customers' meter enclosures (such as age or type for ex.,) as part of APS's initial decision to install “smart” meters in the first place? If so, provide the meter

enclosure inspection protocol that was adopted before APS's first "smart" meter was installed.

d) If in fact there was a meter enclosure inspection protocol adopted, explain why customers should be liable for meter clips that they cannot access to inspect and that worked fine until APS replaced their existing meter with a "smart" meter.

15) In response to the same ACC question as the one in my question #14 above, APS also stated:

Finally, an insurance company otherwise responsible for paying a claim on a house fire, has filed a lawsuit against APS and Elster, claiming that the Elster meter was the cause of the fire. Elster, APS, and their internal and external investigators, disagree with the insurance company's claim. To date, the insurance company's claim remains unsupported by any expert testimony.

- a) How was the aforementioned lawsuit settled?
- b) Has APS been named in any other "smart" meter fire related lawsuits?
- c) If so, how many and what was their outcome?
- d) Have the manufacturers of APS's "smart" meters been named in fire related lawsuits other than the one mentioned by APS above?
- e) If so, how many and what was their outcome?
- f) Were any changes made to APS's practices and processes as a result of any fire claims? If yes, describe.
- g) Were there any changes (safety features) made to the meter design by the manufacturer as a result of any fire claims in APS's service territory? If so, were any APS "smart" meters replaced with ones upgraded with those safety features?

16) Since APS began installing "smart" meters in its service territory,

- a) How many complaints of over-billing has APS received from customers with "smart" meters? Provide a year by year breakdown of number of "smart" meters installed and number of over-billing complaints. For the same time frame, provide a similar breakdown but for those customers with analog meters.
- b) How were the "smart" meter over-billing complaints resolved? If the meter was malfunctioning and refunds were processed to a customer, describe the reasons that the meter malfunctioned and how APS ensures this is not happening elsewhere.

17) Since installing "smart" meters in its service territory,

- a) How many complaints has APS received regarding interference with, and/or damage to, customers' electronic appliances, gadgets &/or medical devices?
- b) How were these complaints resolved?

- s) How much electricity per year is used to run APS's "smart" meter communications network (getting the data from the gateway meters to APS's data center)?
- t) What does "smart" meter data storage cost? Give year by year costs since "smart" meters were installed by APS.
- u) How many IT personnel did APS have to hire as a result of installing "smart" meters?
- v) What is the yearly cost of remuneration for those employees?
- w) Since installing "smart" meters, what has APS spent on outside contractors to install and maintain all aspects of the system as well as to train APS employees in various aspects of the system?

20)

- a) How much has APS spent promoting the mandatory demand and TOU rates it is requesting in this rate case? Include all advertising expenses, website changes expenses, expenses (including employee remuneration) involved in APS's so-called rate case "community outreach" program and "community outreach team," and any related fees paid to consultants. Break down by component.
- b) Who bears these various rate case promotion costs, ratepayers or shareholders?

21)

- a) Since APS began installing "smart" meters, how much has APS spent advertising and promoting those meters, and "educating" customers about them? Include all expenses such as consulting fees, printing, media buys, website changes and mailings.
- b) Who bore the cost of the above expenses, ratepayers or shareholders?

22) How much did APS spend to have Leeka Kheifets attend the ACC "smart" meter workshop meeting at which she presented? Supply any and all correspondence between Leeka Kheifets and APS.

23) In her direct testimony at pages 9 & 10, Barbara Lockwood testified that:

The Company's existing CIS was state of the art – 20 years ago. Today, it is obsolete and is being replaced with a system that is more efficient and can better take advantage of AMI data to provide new services to APS customers. But such sophisticated equipment, both hardware and software, is not cheap; APS will be investing in 2016 and early 2017 some \$120 million to bring this new CIS online.

Was any money spent on the CIS prior to 2016? If so, how much? Include consulting fees, cost of new hires, trips to seminars, everything.

24) In her direct testimony at page 22, Barbara Lockwood testified:

**Q. WILL APS BE IN A POSITION TO ASSIST CUSTOMERS WITH**

- b) Are there any ACC regulations that require APS to provide multi-language services?
- c) What year did the company start offering dual language customer services?
- d) What are the initial costs to set up operations for dual/multi language support and who paid for those costs, ratepayers or shareholders?
- e) What is the annual cost to supply services in Spanish – translations (customer service scripts/procedures, ads, marketing materials, website, bills, etc) – and who pays for that, ratepayers or shareholders? Include any extra remuneration that bilingual employees would get over and above what monolingual English speaking employees would get for the task performed.

33) Who pays for APS's \$3,351,177 2016 advertising budget, ratepayer or shareholders?

34) In my first data request of June 13, 2016, I asked:

I notice in the rate case submission that APS would like to use nontransmitting digital meters for those customers who do not want a "smart" meter. Could you please supply me with the make and model of meter that APS would like to use?

APS replied:

APS is using the Itron C1ST electronic meter for customers who have opted to not use APS's preferred AMI metering.

Yet when ACC Staff asked a similar question they were told by APS (at page 13 of APS's first supplemental response to Staff's third set of data requests) that APS would be using the Itron C1ST *as well as the Elster A3*.

What is the truth?

35)

- a) What are the annual operating costs including depreciation and return on rate base (revenue requirement) for APS's entire "smart" meter system? Include associated IT infrastructure such as data systems, data storage costs, cybersecurity costs, software/system integration, Field Area Network and Project Services, AFUDC, Loads, and other miscellaneous costs). Detail by major category for 2014-2017.
- b) Translate above to per meter cost.
- c) What is the total operating costs including depreciation and return on rate base for customers who have refused "smart" meters, excluding the costs of APS's "smart" meter system?
- d) Translate above to per meter costs.

36)

- a) How many residential meter trouble tickets were processed in 2005? List by type of trouble.